```
Application Project
<120> Title : Polyvalente Allergievakzine
<130> AppFileReference : K 39 161/7sc
<140> CurrentAppNumber :
<141> CurrentFilingDate : _
Sequence
_____
<213> OrganismName : Unknown
<400> PreSequenceString :
MGETLLRAVE SYAGELELQF RRVKCKYTVA TAPEVKYTVF ETALK
     45
<212> Type : PRT
<211> Length: 45
      SequenceName: Hybirdpolypeptid (page 6)
      SequenceDescription :
Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
MEQKLRSAGE LELQFRRVKC KYPEGTKVEF GVFNYETETT SVIPAARLKA FILDGDNLFP
KVAPQAINIE GNGGPGTKIS PEGFPFKYVK DRVDEVDHTN FKYNYSVIEG GPIGDTLEKI
SNEIKIVATP DGGSILKISN KYHTKGDHEV KAEQVKASKE GETLRVESYL LAHSDAYNKL
QAYAATVATA PEVKYTVFET ALKKATAMSE
    210
<212> Type : PRT
<211> Length: 210
      SequenceName : Konstrukt 1 (Phl p 1 - Bet v 1a - Phl p 5) -
Aminosäuresequenz
      SequenceDescription :
Sequence
 _____
<213> OrganismName : Unknown
<400> PreSequenceString :
MAYAATVATA PEVKYTVFET ALKKAITAMS EEFGVFNYET ETTSVIPAAR LFKAFILDGD
NLFPKVAPQA ISSVENIEGN GGPGTIKKIS FPEGFPFKYV KDRVDEVDHT NFKYNYSVIE
    120
GGPIGDTLEK ISNEIKIVAT PDGGSILKIS NKYHTKGDHE VKAEQVKASK EMGETLLRAV
    180
ESYLLAHSDA YNKLEQKLRS AGELELQFRR VKCKYPEGTK V
    221
<212> Type : PRT
<211> Length : 221
      SequenceName : Konstrukt 2 (Phl p 5 - Bet v la - Phl p 1) -
Aminosäuresequenz
```

## SequenceDescription :

300

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Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
MGEFGVFNYE TETTSVIPAA KLFKAFILDG DNLFPKVAPQ AISSVENIEG NGGPGTIKKI
SFPEGFPFKY VKDRVDEVDH TNFKYNYSVI EGGPIGDTLE KISNEIKIVA TPDGGSILKI
    120
SNKYHTKGDH EVKAEQVKAS KEMGETLLRA VESYLLAHSD AYNKLEQKLR SAGELELQFR
    180
RVKCKYPEGT KVTSQAYAAT VATAPEVKYT VFETALKKAI TAMSE
    225
<212> Type : PRT
<211> Length : 225
      SequenceName: Konstrukt 3 (Bet v 1a - Phl p 1 - Phl p 5) -
Aminosäuresequenz
      SequenceDescription :
Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
MEQKLRSAGE LELQFRRVKC KYPEGTKVTS QAYAATVATA PEVKYTVFET ALKKAITAMS
EEFGVFNYET ETTSVIPAAR LFKAFILDGD NLFPKVAPQA ISSVENIEGN GGPGTIKKIS
    720
FPEGFPFKYV KDRVDEVDHT NFKYNYSVIE GGPIGDTLEK ISNEIKIVAT PDGGSILKIS
NKYHTKGDHE VKAEQVKASK EMGETLLRAV ESYLLAHSDA YN
    222
<212> Type : PRT
<211> Length : 222
      SequenceName: Konstrukt 4 (Phl p 1 - Phl p 5 - Bet v 1a) -
Aminosäuresequenz
      SequenceDescription :
Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
ccatggagca gaagctgcgc agcgccggcg agctggagct ccagttccgg cgcgtcaagt
     60
qcaaqtaccc qqaqqqcacc aaggtqqaat tcqqtgtttt caattacqaa actqaqacca
    120
corotyttat cocagoaget eqactyttea aggeetttat cottgatgge gataatetet
    180
ttccaaaggt tgcaccccaa gccattagca gtgttgaaaa cattgaagga aatggagggc
    240
```

ctggaaccat taagaagatc agctttcccg aaggcttccc tttcaagtac gtgaaggaca

- gagttgatga ggtggaccac acaaacttca aatacaatta cagcgtgatc gagggcggtc 360
- ccataggcga cacatggaga agatetecaa egagataaag atagtggeaa eccetgatgg
- aggatecate tigaagatea geaacaagta ecacaceaaa ggtgaecatg aggtgaagge 480
- agagcaggtt aaggcaagta aagaaatggg cgagacactt ttgagggccg ttgagagcta 540
- cetettggca cactecgatg cetacaacaa getteaggee taegeegeea eegtegeeac
- cgcgccggag gtcaagtaca ctgtctttga gaccgcactg aaaaaggcca tcaccgccat 660
- gtccgaataa ctcgag

676

<212> Type : DNA

<211> Length : 676

SequenceName : Konstrukt 1 (Phl p l - Bet v la - Phl p 5) -

Nukleotidsequenz

SequenceDescription:

## Custom Codon

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Sequence Name: Konstrukt 1 (Phl p 1 - Bet v 1a - Phl p 5) - Nukle otidsequenz

## Sequence

<213> OrganismName : Unknown

<400> PreSequenceString :

- ccatggceta cgccgccacc gtcgccaccg cgccggaggt caagtacact gtctttgaga 60
- ccgcactgaa aaaggccatc accgccatgt ccgaagaatt cggtgttttc aattacgaaa 120
- ctgagaccac ctctgttatc ccagcagctc gactgttcaa ggcctttatc cttgatggcg
- ataatctctt tccaaaggtt gcacccaag ccattagcag tgttgaaaac attgaaggaa 240
- atggagggcc tggaaccatt aagaagatca gctttcccga aggcttccct ttcdagtacg 300
- tgaaggacag agttgatgag gtggaccaca caaacttcaa atacaattac agcgtgatcg 360
- agggcggtcc cataggcgac acatggagaa gatctccaac gagataaaga tagtggcaac 420
- ccctgatgga ggatccatct tgaagatcag caacaagtac cacaccaaag gtgaccatga 480
- ggtgaaggca gagcaggtta aggcaagtaa agaaatgggc gagacacttt tgagggccgt 540
- tgagagetae etettggeac acteegatge etacaacaag ettgageaga agetgegeag
- cgccggcgag ctggagctcc agttccggcg cgtcaagtgc aagtacccgg agggcaccaa 660

ggtgtaactc gag

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673
<212> Type : DNA
<211> Length : 673
     SequenceName : Konstrukt 2 (Phl p 5 - Bet v 1a - Phl p 1) -
Nukleotidsequenz
      SequenceDescription:
Custom Codon
Sequence Name : Konstrukt 2 (Phl p 5 - Bet v la - Phl p 1) - Nukle
otidsequenz
Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
ccatgggaga attcggtgtt ttcaattacg aaactgagac cacctctgtt atcccagcag
ctcgactgtt caaggccttt atccttgatg gcgataatct ctttccaaag gttgcacccc
    120
aagccattag cagtgttgaa aacattgaag gaaatggagg gcctggaacc attaagaaga
tcagctttcc cgaaggcttc cctttcaagt acgtgaagga cagagttgat gaggtggacc
    240
acacaaactt caaatacaat tacagcgtga tcgagggcgg tcccataggc gacacatgga
    300
gaagatotoo aacgagataa agatagtggo aaccootgat ggaggatooa tottgaagat
    360
cagcaacaag taccacacca aaggtgacca tgaggtgaag gcagagcagg ttaaggcaag
taaagaaatg ggcgagacac ttttgagggc cgttgagagc tacctcttgg cacactccga
    480
tgcctacaac aagcttgagc agaagctgcg cagcgccggc gagctggagc tccagttccg
    540
gcgcgtcaag tgcaagtacc cggagggcac caaggtgact agtcaggcct acgccgccac
    600
cgtcgccacc gcgccggagg tcaagtacac tgtctttgag accgcactga aaaaggccat
caccqccatg tccgaataac tcgag
    685
<212> Type : DNA
<211> Length : 685
      SequenceName: Konstrukt 3 (Bet v 1a - Phl p 1 - Phl p 5) -
Nukleotidsequenz
      SequenceDescription :
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#### Custom Codon

Sequence Name: Konstrukt 3 (Bet v 1a - Phl p 1 - Phl p 5) - Nukle otidsequenz

Sequence

. . . . . . . . . . .

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<213> OrganismName : Unknown
<400> PreSequenceString:
ccatggagca gaagetgege agegeeggeg agetggaget ccagtteegg egegteaagt
gcaagtacco ggagggcaco aaggtgacta gtcaggccta cgccgccacc gtcgccaccg
cgccggaggt caagtacact gtctttgaga ccgcactgaa aaaggccatc accgccatgt
    180
ccgaagaatt cggtgttttc aattacgaaa ctgagaccac ctctgttatc ccagcagctc
    240
gactgttcaa ggcctttatc cttgatggcg ataatctctt tccaaaggtt gcacccaag
ccattagcag tgttgaaaac attgaaggaa atggagggcc tggaaccatt aagaagatca
    360
gctttcccga aggcttccct ttcaagtacg tgaaggacag agttgatgag gtggaccaca
    420
caaacttcaa atacaattac agegtgateg agggeggtee cataggegae acatggagaa
    480
gatetecaae gagataaaga tagtggcaae eeetgatgga ggatecatet tgaagateag
caacaagtac cacaccaaag gtgaccatga ggtgaaggca gagcaggtta aggcaagtaa
agaaatgggc gagacacttt tgagggccgt tgagagctac ctcttggcac actccgatgc
    660
ctacaactaa ctcgag
    676
<212> Type : DNA
<211> Length : 676
      SequenceName : Konstrukt 4 (Phl p 1 - Phl p 5 - Bet v 1a) -
Nukleotidsequenz
      SequenceDescription :
Custom Codon
Sequence Name : Konstrukt 4 (Phl p 1 - Phl p 5 - Bet v la) - Nukle
otidsequenz
Sequence
____-
<213> OrganismName : Unknown
<400> PreSequenceString :
catgccatgg agcagaagct gcgcagc
     27
<212> Type : DNA
<211> Length : 27
                                       Pept 2 - Bet v la - Pept 4
      SequenceName : Construct 1:
 (1a)
      SequenceDescription :
Custom Codon
```

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K 39 161.WorkFile
                               Pept 2 - Bet v la - Pept 4 (la)
Sequence Name : Construct 1:
Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
atgaattcca ccttggtgcc ctccgg
     26
<212> Type : DNA
<211> Length : 26
      SequenceName : Construct 1: Pept 2 - Bet v 1a - Pept 4
(1b)
      SequenceDescription :
Custom Codon
Sequence Name : Construct 1: Pept 2 - Bet v la - Pept 4(lb)
Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
accaagette aggeetaege egecace
     27
<212> Type : DNA
<211> Length: 27
      SequenceName : Construct 1:
                                   Pept 2 - Bet v la - Pept 4
(1c)
      SequenceDescription :
Custom Codon
Sequence Name : Construct 1: Pept 2 - Bet v 1a - Pept 4(1c)
Sequence
_____
<213> OrganismName : Unknown
<400> PreSequenceString :
ccqctcqaqt tattcggaca tggcggtgat
     30
<212> Type : DNA
<211> Length : 30
      SequenceName : Construct 1: Pept 2 - Bet v 1a - Pept 4
(1d)
      SequenceDescription :
Custom Codon
Sequence Name : Construct 1: Pept 2 - Bet v la - Pept 4(1d)
Sequence
```

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K 39 161.WorkFile
<213> OrganismName : Unknown
<400> PreSequenceString :
accaagettg ageagaaget gegeage
     27
<212> Type : DNA
<211> Length : 27
                                      Pept 4 - Bet v 1a - Pept 2
      SequenceName : Construct 2:
(2a)
      SequenceDescription :
Custom Codon
Sequence Name : Construct 2: Pept 4 - Bet v 1a - Pept 2(2a)
Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
cogotogagt tacacottgg tgccctccgg
     30
<212> Type : DNA
<211> Length : 30
      SequenceName : Construct 2: Pept 4 - Bet v la - Pept 2
(2b)
      SequenceDescription :
Custom Codon
Sequence Name : Construct 2: Pept 4 - Bet v 1a - Pept 2(2b)
Sequence
_____
<213> OrganismName : Unknown
<400> PreSequenceString :
catgccatgg cctacgccgc caccgtc
     27
<212> Type : DNA
<211> Length : 27
      SequenceName : Construct 2:
                                      Pept 4 - Bet v 1a - Pept 2
(2c)
      SequenceDescription :
Custom Codon
Sequence Name : Construct 2: Pept 4 - Bet v la - Pept 2(2c)
Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
atgaattott oggacatggo ggtgat
     26
```

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K 39 161.WorkFile
<212> Type : DNA
<211> Length : 26
     SequenceName : Construct 2: Pept 4 - Bet v la - Pept 2
(2d)
     SequenceDescription :
Custom Codon
Sequence Name : Construct 2: Pept 4 - Bet v la - Pept 2(2d)
Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
accaagettg ageagaaget gegeage
    27
<212> Type : DNA
<211> Length: 27
      SequenceName : Construct 3: Bet v 1a - Pept 2 - Pept 4
(3a)
      SequenceDescription :
Custom Codon
------
Sequence Name: Construct 3: Bet v la - Pept 2 - Pept 4(3a)
Sequence
_____
<213> OrganismName : Unknown
<400> PreSequenceString :
ggactagtca ccttggtgcc ctccgg
    26
<212> Type : DNA
<211> Length : 26
     SequenceName : Construct 3: Bet v la - Pept 2 - Pept 4
(3b)
      SequenceDescription :
Custom Codon
Sequence Name: Construct 3: Bet v 1a - Pept 2 - Pept 4(3b)
Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
ggactagtca ggcctacgcc gccacc
     26
<212> Type : DNA
<211> Length: 26
     SequenceName : Construct 3: Bet v la - Pept 2 - Pept 4
```

(3c)

SequenceDescription:

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Custom Codon
Sequence Name: Construct 3: Bet v la - Pept 2 - Pept 4(3c)
Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
ccgctcgagt tattcggaca tggcggtgat
     30
<212> Type : DNA
<211> Length: 30
      SequenceName : Construct 3: Bet v la - Pept 2 - Pept 4
(3d)
      SequenceDescription :
Custom Codon
______
Sequence Name: Construct 3: Bet v 1a - Pept 2 - Pept 4(3d)
Sequence
------
<213> OrganismName : Unknown
<400> PreSequenceString :
catgccatgg agcagaagct gcgcagc
    27
<212> Type : DNA
<211> Length: 27
      SequenceName : Construct 4:
                                      Pept 2 - Pept 4 - Bet v la
(4a)
      SequenceDescription :
Custom Codon
Sequence Name : Construct 4: Pept 2 - Pept 4 - Bet v la(4a)
Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
ggactagtca ccttggtgcc ctccggg
    27
<212> Type : DNA
<211> Length : 27
     SequenceName : Construct 4:
                                  Pept 2 - Pept 4 - Bet v 1a
(4b)
     SequenceDescription:
Custom Codon
_____
```

```
K 39 161.WorkFile
                               Pept 2 - Pept 4 - Bet v 1a(4b)
Sequence Name : Construct 4:
Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
ggactagtca ggcctacgcc gccacc
    26
<212> Type : DNA
<211> Length : 26
      SequenceName : Construct 4:
                                      Pept 2 - Pept 4 - Bet v la
(4c)
      SequenceDescription :
Custom Codon
Sequence Name : Construct 4: Pept 2 - Pept 4 - Bet v la(4c)
Sequence
_____
<213> OrganismName : Unknown
<400> PreSequenceString :
atgaattctt cggacatggc ggtgat
    26
<212> Type : DNA
<211> Length : 26
                                       Pept 2 - Pept 4 - Bet v 1a
      SequenceName : Construct 4:
(4d)
      SequenceDescription :
Custom Codon
Sequence Name: Construct 4: Pept 2 - Pept 4 - Bet v la(4d)
Sequence
<213> OrganismName : Unknown
<400> PreSequenceString :
catgccatgg gagaattcgg tgttttcaat tacgaaactg
    40
<212> Type : DNA
<211> Length: 40
     SequenceName : Bet v 1a(5a)
     SequenceDescription:
Custom Codon
-----
Sequence Name : Bet v la(5a)
Sequence
<213> OrganismName : Unknown
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<400> PreSequenceString : ccgctcgagt ccaagcttgt tgtaggcatc ggagtgtg 38

<212> Type : DNA <211> Length : 38

SequenceName : Bet v 1a(5b)
SequenceDescription :

Custom Codon

Sequence Name : Bet v 1a(5b)

Sequence

<213> OrganismName : Unknown <400> PreSequenceString :

ccgctcgagt tagttgtagg catcggagtg 30

<212> Type : DNA <211> Length : 30

SequenceName : Bet v la(5c) SequenceDescription :

Custom Codon

Sequence Name : Bet v 1a(5c)